FEED SYSTEMS | WATERING | ENVIRONMENT

CUMBERLAND

COMPLETE TURKEY SYSTEMS

Cumberland®

Your Source for Innovative Solutions

Turkey Pan Feeding

Turkey Poult Feeder

Turkey Poult Feeder

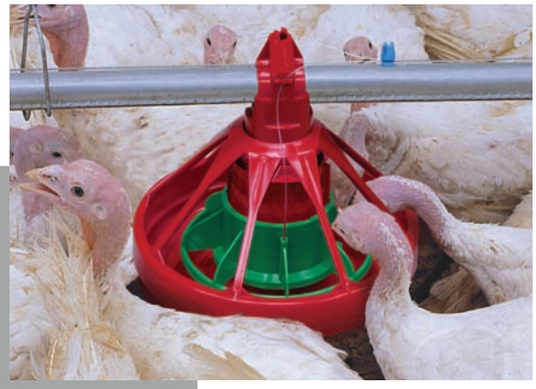
Cumberland's Plastic Turkey Poult Feeder incorporates many features to enhance performance and save you money. This new design helps prohibit bird entrance into the feeder thus reducing shavings within the feed. Additional features include easy feed level adjustment, winchable feed level, and simple feeder pan removal for easy cleaning.

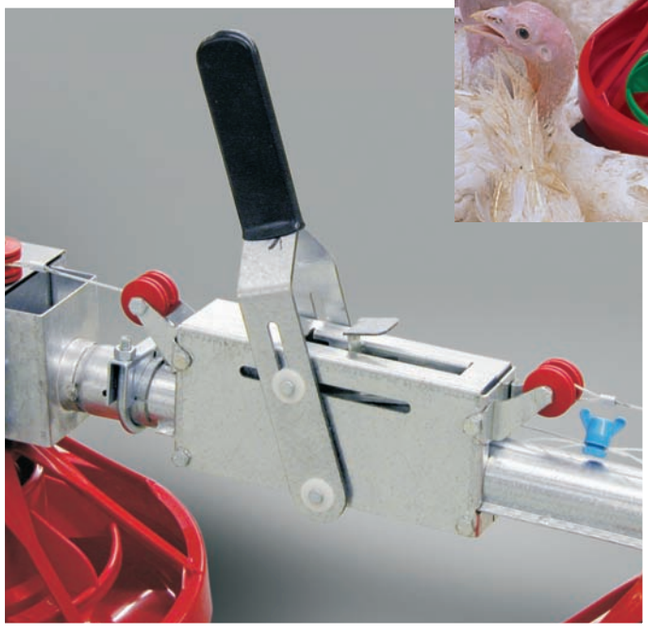
Turkey Feeder Features

- Two piece drop tube for ease of installation or replacement.
- Numerous feed level settings.
- Feed saver lip.
- For use on 1-3/4" (44 mm) tube.
- An inner ring helps prohibit bird entrance into the feeder and in turn reduces shavings within the feed.
- Durable construction design for longevity.
- Winchable feed level.
- Simple removal of the pan from the feeder for easy cleaning.

Multi-Setting Switch

Feeder restrictor rings throughout the line are easily raised and lowered to a desired level using an innovative, multiple setting, locking tab winch.





Adult Turkey Feeders

Cumberland's Adult Turkey Feeders represent the most widely accepted turkey feeders in the industry today. This classic design features fully galvanized steel or plastic pans and fully galvanized steel shields. Standard are the feed-saving, deep "V" bottom pans and steep, inward swept lips which reduce billout and return feed to the eating area. The Adult Turkey Feeders also feature a durable, free swinging, steel square drop tube. Swing down pan design for easy cleaning between flocks and adjustable feed level.

Adult Turkey Feeder with Steel Pan

Adult Turkey Feeder with Plastic Pan

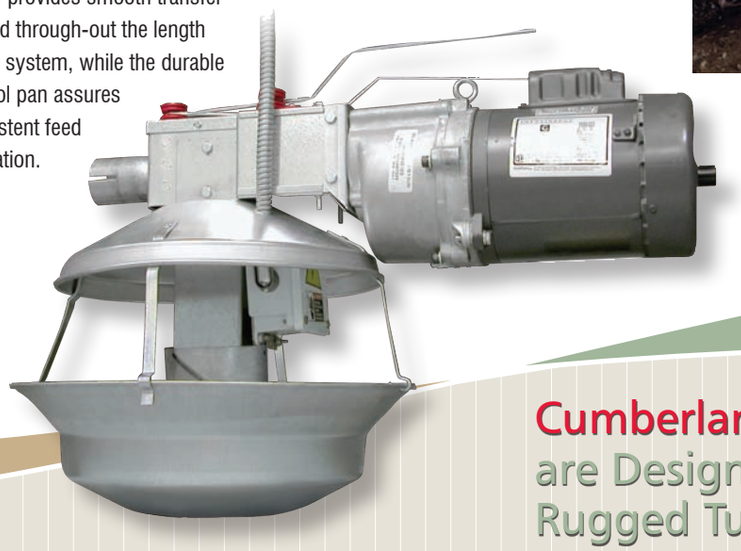
For the all-important transition period between brooding and finishing, Cumberland provides an intermediate pan which is interchangeable to provide more versatility to the Cumberland Turkey Feeding Systems.

Adult Turkey Tubing

Exclusive to the adult turkey feeding industry, Cumberland offers a heavy duty, 2" ribbed tube design. This tube provides added strength compared to the traditional seamless tubing.

Control Pan & Drive Unit

Cumberland's high efficiency control pan and drive unit is specially designed for simplicity and reliability, with many years of proven field performance. The 1/2 to 3/4 horsepower electric motor provides smooth transfer of feed through-out the length of the system, while the durable control pan assures consistent feed regulation.



Cumberland's Turkey Feeding Systems are Designed and Built Stout for the Rugged Turkey Industry.

Feed Storage and Delivery

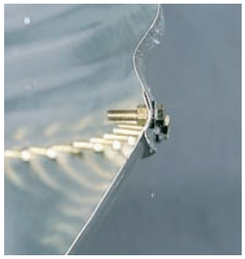
Bulk Feed Tanks

Cumberland is a division of The GSI Group, Inc., the world's largest manufacturer of corrugated, galvanized steel storage tanks. Therefore, you can be assured every component is made from the finest raw materials available and is manufactured by skilled professionals who have years of experience. Whatever the project, Cumberland has variety of bin sizes to fit your specific needs.

40˚ roofs provide additional strength and capacity. (Shown with optional pneumatic fill kit.)

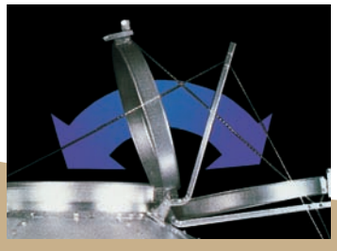
One-of-a-Kind Drip Lip

Cumberland's new drip lip water deflection system is a one-of-a-kind, roll-formed bottom sheet edge, which forces water away from the hopper and lower boot area. Complete weather protection without a loss in capacity.



Secure Access

Cumberland feed tanks feature the exclusive, patented "Auto-Lok" ground control access system for opening, closing, and latching the fill cap safely and easily from the ground. Our cap system comes completely factory assembled. The cap itself swings open a full 180°. The cap lies flat, parallel to the ground, completely eliminating interference with, or damage to, the cap from the fill auger.



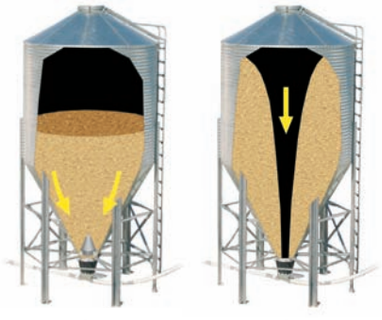
Bin Roof

Cumberland offers your choice of a 30° or 40° bin roof to adapt to any application. Roof panels are precision manufactured using die-form tooling to provide consistent quality. Both 30° and 40° roofs feature reinforcing ribs at each roof seam for added strength and rigidity.

Sure-Flo

Sure-Flo directs feed down the hopper of the bin rather than down the center creating a first in, first out feed flow.

- *Reduces Feed Bridging*
- *First Feed In is First Feed Out*
- *Reduces Feed Separation*
- *Easy to Install*

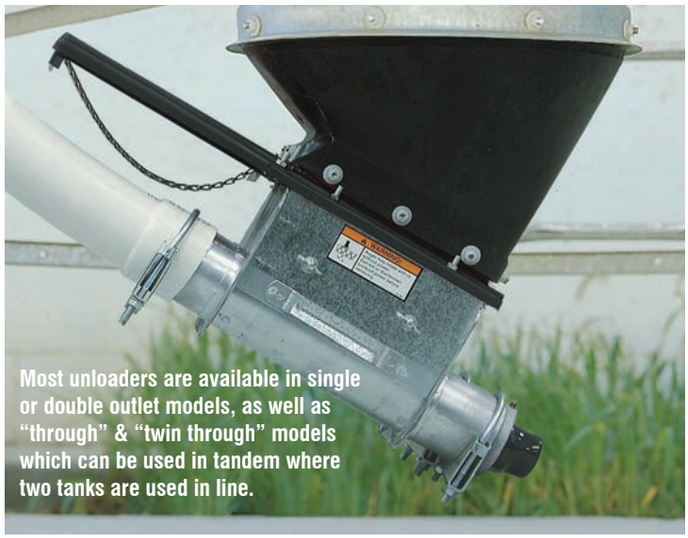


With Sure-Flo **Without Sure-Flo**

Sure-Flo

Cumberland Unloaders

Designed to fit below the 16" (406mm) plastic and 22" (559 mm) metal boots, Cumberland's standard unloaders are available for 2.2" (55mm), 3" (75mm), 3.5" (90mm), and 5" (125mm). All Cumberland unloaders have an ultra high impact, polypropylene slide-gate above the auger to meter feed or serve as a complete shut off. Also, a convenient inspection/clean out plate, located on the side, is easily removed with two wing nuts.


Most unloaders are available in single or double outlet models, as well as "through" & "twin through" models which can be used in tandem where two tanks are used in line.

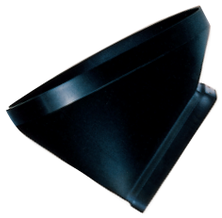
Single Unloader shown with optional swing away bottom for 100% cleanout.

Flex-Flo Systems	Model 220	Model 300	Model 350	Model 500	Model HR
Tube Outside Diameter	2.25"	3"	3.5"	5"	3.5"
Tube Outside Diameter (mm)	55	75	90	125	90
Tube Corner Radius	5'/10'	5'	5'	6'	5'
Tube Corner Radius (m)	3.05	1.83	1.83	1.83	1.83
Max. Single System Length with Three Elbows	250'	200'	150'	*150'	150'
Max. Single System Length (m) with Three Elbows	76.2	60.96	45.72	*45.72	45.72
Recommended Motor Sizes at Max. Length (Horsepower)	.5	1	1	1.5	1
Capacity (Lbs./Minute at 40 Lbs. per Cu. Ft.)	15	50	100	220	50
Capacity (Lbs./Minute at 640 kg. per Cu. m)	480	1360	2722	5988	1360
Extension Length (Motor End of First System) w/o Elbows	300'	235'	185'	*185'	185'
Extension Length (Motor End of First System) (m) w/o Elbows	92	72	56	*56	56

** For High Moisture Corn Reduce System Length by 50%*

Heavy Duty Boots

Cumberland's 16" (40.6cm) parabolic boot (available in straight boot, 30° boot, and straight twin boot) is made from the very latest in ultra high impact polypropylene for greater flexibility, dependability and durability.



30° Drop Boot

Clear Boots

Cumberland's clear boot allows producers to verify at a glance while driving by that feed is present in the bin. This heavy walled boot is injected molded from a specially for-mulated ultraviolet stabilized clear polycarbonate blend to provide years of trouble free service.

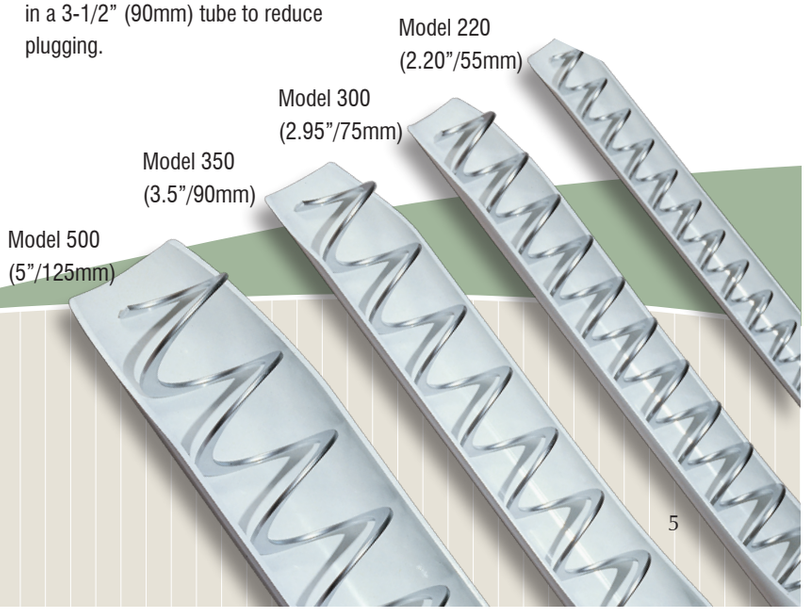
Straight Boot

Twin Boot

Flex-Flo™ Models

Cumberland offers five Flex-Flo models with capacities ranging from 15 lbs. to 220 lbs./minute (6.8kg to 99.8kg/min.). Whether it's ground feed, crumble feed, mash, high moisture corn, shelled corn or pellets, Cumberland has the equipment to handle it. For corn with up to 27% moisture and other hard to flow materials, Cumberland also offers a Flex-Flo™ High Roughage system which incorporates a special combination of a 3" (75mm) auger in a 3-1/2" (90mm) tube to reduce plugging.

Clear Boot



Nipple Drinker Systems

High Quality, Low Maintenance

Cumberland's nipple drinker system includes the 360° side-to-side nipple valve toggle action, plus an increased flow rate with vertical lift action. Cumberland nipples use a stainless steel upper pin for water flow control, giving longer life and a more precise flow rate. Cumberland's experience and engineering continue to bring to you a complete watering system loaded with innovations, features and low maintenance reliability, providing for large healthy birds and dry floors.

End Kit: CW-9500

- Extra strong design.
- Tall flexible sight gauge allows easy pressure reading.
- Garden hose drain.

Water Pipe Guide

Connection: CW-5020

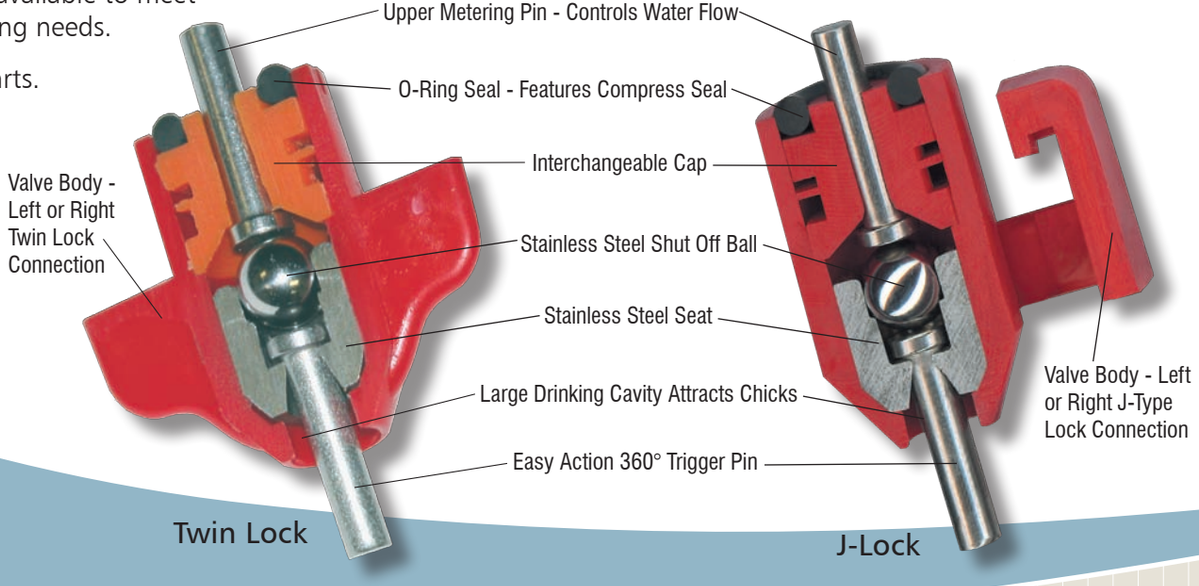
- External sealing "O-ring" connection allows unobstructed water flow.
- No glue necessary.
- 1.05" (27 mm) large volume pipe.
- Simple push together assembly.
- Keyed connection from regulator to end assembly.
- Light resistant water pipe prevents algae.

Aluminum Support Rail

Folding hangers or rail alignment clip hold the watering tube/nipples firmly in place while allowing the support tube/aluminum rail to freely slide should it expand or contract in changing climates.

Twin Lock/J-Lock Nipple Valves

- 6 different styles available to meet everyone's watering needs.
- Only 3 moving parts.
- Four times easier action.
- Quick and easy assembly for Twin Lock (no wrench required).


Upper Metering Pin - Controls Water Flow
O-Ring Seal - Features Compress Seal
Interchangeable Cap
Valve Body - Left or Right Twin Lock Connection
Stainless Steel Shut Off Ball
Stainless Steel Seat
Large Drinking Cavity Attracts Chicks
Easy Action 360° Trigger Pin
Valve Body - Left or Right J-Type Lock Connection
Twin Lock
J-Lock

Water Pipe Notch

Drinking Cups

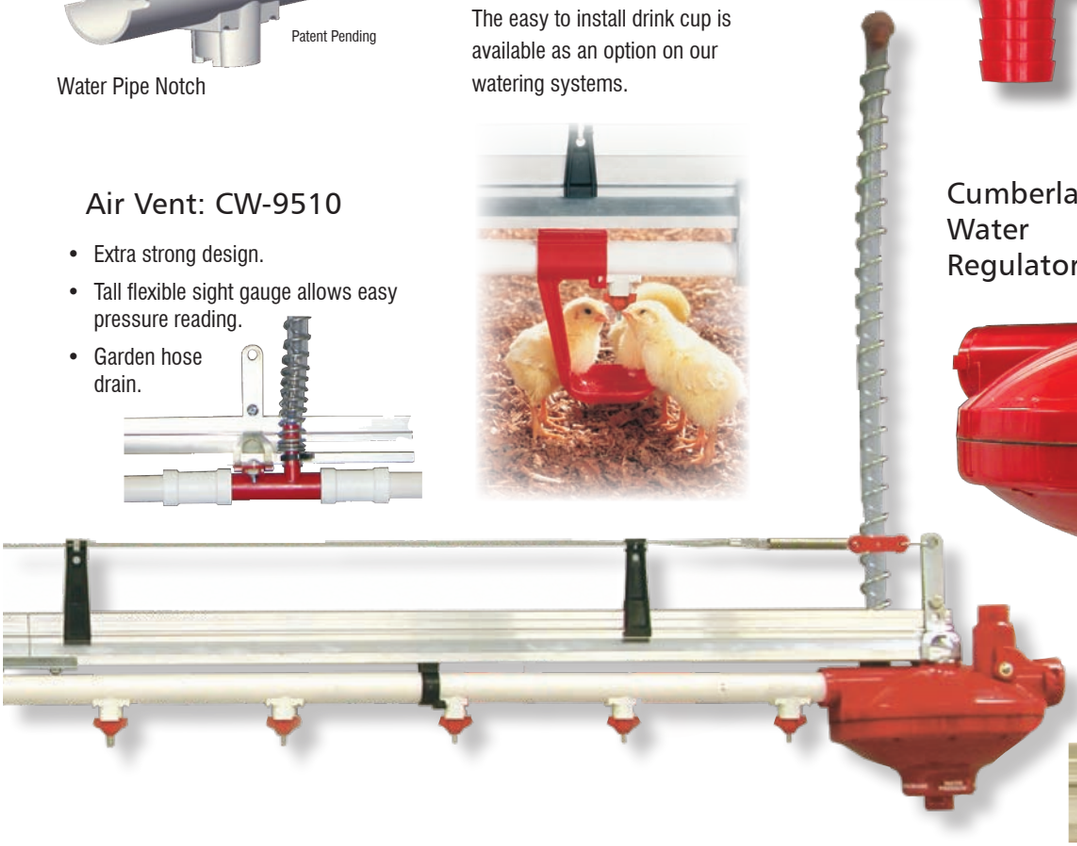
The easy to install drink cup is available as an option on our watering systems.

Self Sealing Cap

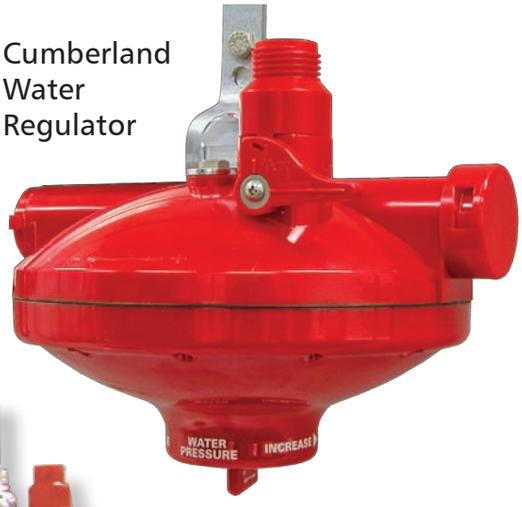
Self sealing cap at clear sight tube to prevent water spillage.

Air Vent: CW-9510

- Extra strong design.
- Tall flexible sight gauge allows easy pressure reading.
- Garden hose drain.



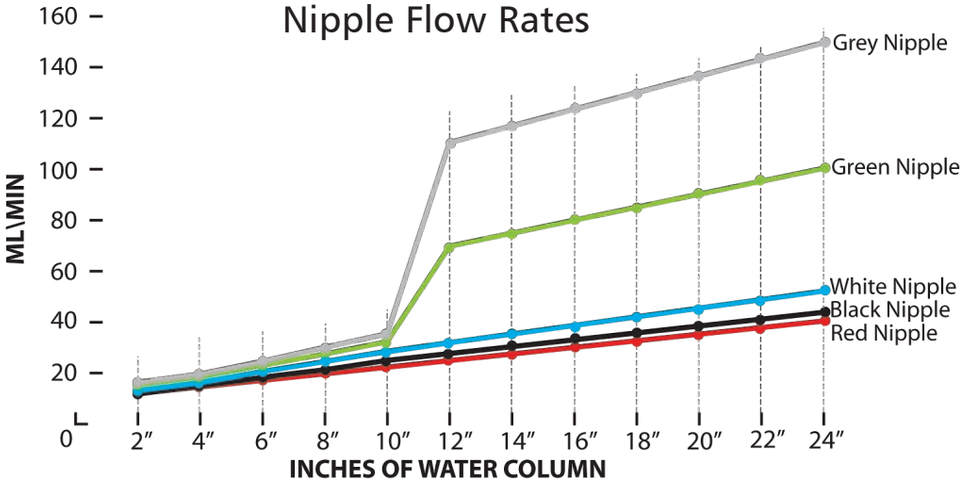
Cumberland Water Regulator



Manual Flush

Cumberland's unique Water Regulator is designed for greater versatility and ease of use, no by-pass necessary.

Nipple Flow Rates



Removable End Cap

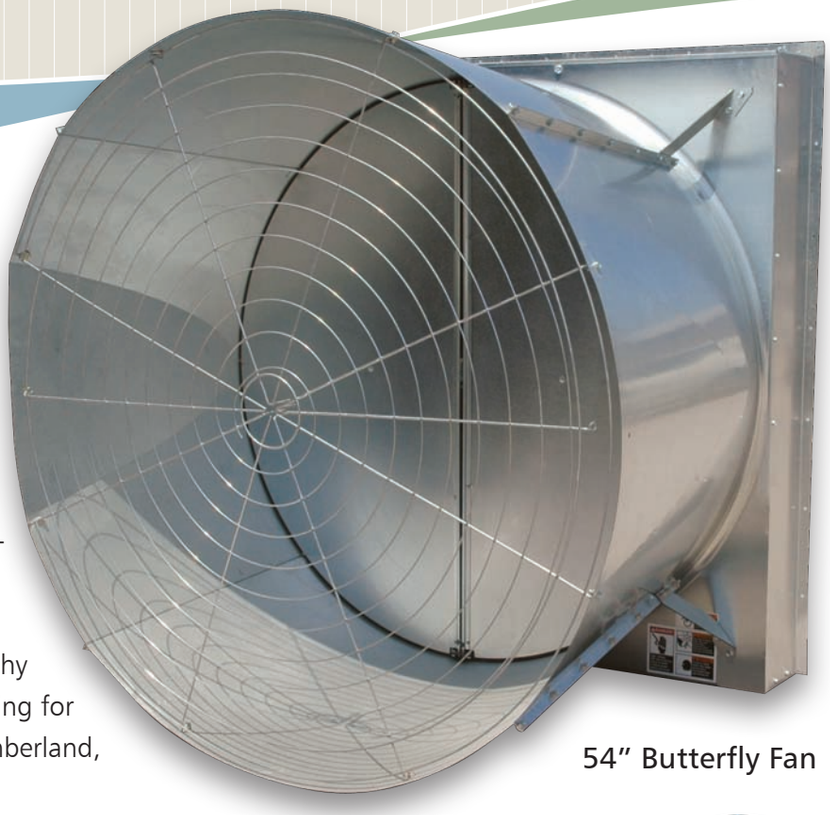
The Cumberland Regulator can be easily removed from the watering line without interfering with the suspension of the watering line. With the unique in-line design, this regulator can be used as a mid-line regulator by simply removing the end cap.

Flushing of the Cumberland Watering System requires NO EXTRA PLUMBING AND VALVES.

Galvanized Fans

Lower Cost... ...Increase Profits

Cumberland ventilation systems are the perfect solution for more efficient, high performance, climate control in poultry production facilities. Our equipment has been field refined and industry proven to be extremely effective in reducing bird stress caused by overheated or poorly ventilated houses. Even if your building is well ventilated, inefficient equipment can blow healthy bird profits right out the window. If you're looking for a better return on your investment, look to Cumberland, your ventilation company.



54" Butterfly Fan

Butterfly Fan Features

A balance of performance, features, and value come with Cumberland's 50" & 54" Butterfly fans.

- Simple Butterfly style shutter structure improves fan performance and stability.
- Butterfly design eliminates the need for the traditional louver shutter, which are prone to dust buildup.
- During fan operation, the air forces the shutter doors open to provide full fan performance.
- Uses a magnetic shutter panel ring to alleviate movement of shutter doors while not in operation. In turn, the sealing area is reduced 50% or more compared to the traditional louver style shutter, resulting in lower heating cost during winter months.
- Critical stainless steel moving parts enhance stability, reliability and long lasting performance.

Front shutter doors offer protection from harsh weather conditions such as wind and moisture while the fan is not in use.

CAT. 5

Arched Side Cone Panel

Cumberland's unique arched side cone panels allow you to mount fans closer together on field installations.

Look to Cumberland for a Better Return on Your Investment.

Slantwall Fans

Cumberland offers 36” and 50” galvanized steel belt drive and direct drive slantwall fans to efficiently and effectively maintain optimal environmental conditions. All galvanized fans are constructed of heavy gauge, G-90 grade galvanized steel and use totally enclosed “TEAO” motors designed for high efficiency and continuous duty cycles. Galvanized fan propellers are aerodynamically balanced for maximum air flow.

Cone Fans

Optional discharge cones can boosts fan output by as much as 10-15%, greatly increasing efficiency. Made of all galvanized steel, cones are available in easy to ship and assemble four-piece segments for 36” & 50” models.

Box Fans

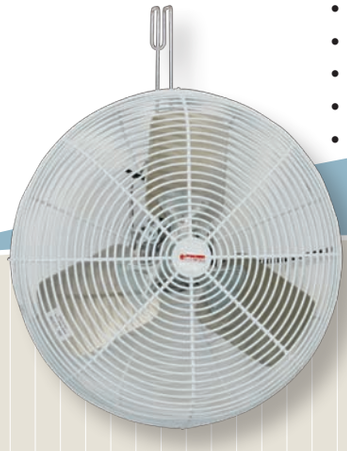
Cumberland box fans feature heavy duty galvanized steel housings, grill guards, venturis and propellers. Offered in 36” (14” and 19” depth) or 50” (21” and 25” depth) diameters, these fans are available in either direct drive or belt drive models.

Drive Train

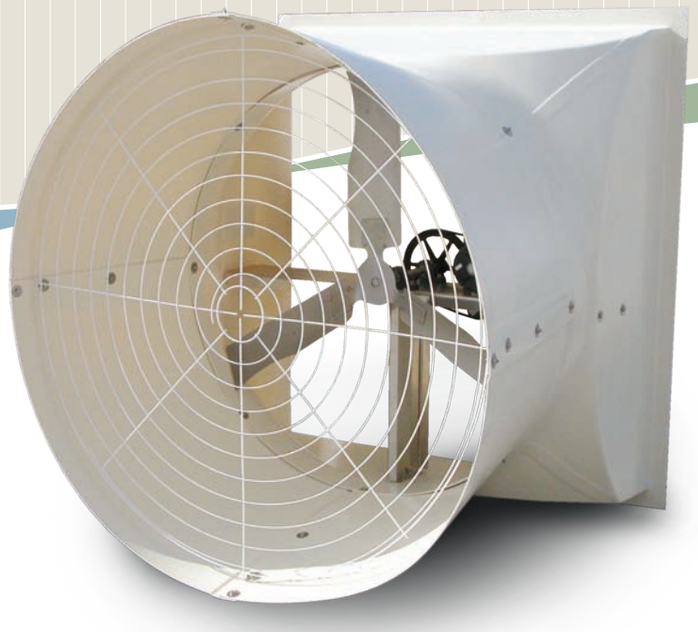
- Standard with all belt drive fans
- Large, cast iron, high quality greasable pillow block bearings to be used for longer life.
- Large Pulleys allow for longer belt life and smoother operation.
- Easy Access for belt removal.
- Automatic style belt tensioner to always ensure proper belt tension.

20” Cumberland Circulation Fan

- PVC Coated Guards
- Pre-Wired from Cumberland
- High Efficient 1/10 HP “TEAO” Motor
- Galvanized Prop for Whisper Operation
- Factory Assembled
- Multi-Application Hanging Bracket



Fiberglass Fans



Fiberglass Fans

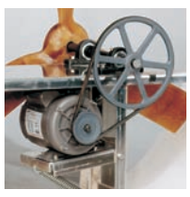
Cumberland's fiberglass ventilation fans are available in 36" and 50" diameters, with and without cones. These fans are manufactured using a "Resin Transfer Molding" (RTM) process for a smooth finish on both interior and exterior surfaces of the fan housing. The motor mount and internal framework of the fan is constructed of corrosion resistant, heavy gauge aluminum and assembled with stainless steel hardware. The basic fan includes a heavy vinyl coated guard, shutter, all aluminum and stainless steel mounting hardware.

54" Competitor Series Fan

Cumberland's 54" Competitor Series fiberglass cone fan is the newest generation of ventilation equipment. The Competitor Series Fans were designed for poultry facilities that desire high capacity and efficiency. It comes standard with a high performance stainless steel propeller and PVC shutter. Upon request, housings can be shipped in a two-piece knockdown version, along with the four piece cone dramatically reducing freight cost. Other features include 1.75 HP motor in single or three phase, automatic belt tensioning system, and stainless steel hardware.

Drive Train

Drive shafts of 1" material allow for large, cast iron, greasable pillow block bearings to be used for longer life. Large pulleys allow for longer belt life and smoother operation.



Composite Propellers

Props are made of a tough composite fiberglass. Engineered with a true airfoil design, these propellers increase the overall efficiency of the fan providing optimum airflow effectiveness.

54" Fiberglass Belt Drive

The belt driven Competitor Series Fans offers an automatic belt tensioner that provides smooth operation and maintains constant belt tension. Features include easy access for belt removal, fiberglass housing and cone, motor base and mounting hardware. Like all Cumberland belt drive fiberglass fans, cast iron pulleys and greasable pillow block bearings are standard features.

Galvanized Fan Performance Values

					0.0 Static Pressure		.05 Static Pressure		.10 Static Pressure		BESS Lab
Model	**Dia.**	**Drive**	**Type**	**HP**	**CFM**	**CFM/Watt**	**CFM**	**CFM/Watt**	**CFM**	**CFM/Watt**	**Test #**
G50CBF16GA	50”	Belt	Butterfly	1.5	25238	27.4	23524	24	21807	20.8	4309
G50CBF16GAHE	50”	Belt	Butterfly	1.5	23915	30.2	22131	25.9	19937	22.1	4310
G50CBF16GAHF	50”	Belt	Butterfly	1.5	26913	24.2	25427	21.5	23603	18.9	4308
G54CBF16GA	54”	Belt	Butterfly	1.5	-	-	* 31800	22.6	29450	19.8	6218
G54CBF16GAE	54”	Belt	Butterfly	1.5	-	-	27500	25.9	24720	21.7	6223
G54CBF16GAU	54”	Belt	Butterfly	1.5	-	-	25000	28.8	21850	23.3	6222
CGSB36	36”	Belt	Slantwall	0.5	10578	19	9984	17.1	9379	15.5	98273
G50SL16GA	50”	Belt	Slantwall	1	22373	18.6	21042	17	19595	15.5	98283
CGSD36	36”	Direct	Slantwall	0.5	10417	17.5	9747	15.8	9105	14.2	94-0015
CGSD50	50”	Direct	Slantwall	1.25	20400	19.2	19300	17.5	18100	15.8	94328
CGBB3614	36”	Belt	Box	0.5	10171	19.6	9615	17.8	8969	15.8	00128
CGBB5021	50”	Belt	Box	1	20861	20.9	19486	19.1	18071	17.4	94276
CGBD3614	36”	Direct	Box	0.5	10950	19.3	10280	17.7	9560	16	94131
CGBD5021	50”	Direct	Box	1.25	20450	1909	19200	17.8	17910	15.9	94283
CGSBC36	36”	Belt	SW Cone	0.5	11341	20.9	10653	18.4	9898	16.4	98275
G50SCL16GA	50”	Belt	SW Cone	1	24700	22.5	23100	20	21500	17.7	3168
G54SCL16GA	54”	Belt	SW Cone	1.5	28900	27.1	26700	23.6	24300	20.4	-
G54SCL16GHF	54”	Belt	SW Cone	1.5	30856	24.0	29184	21.3	27185	18.8	-

Ultra High Efficient

* Performance values of this fan at .05” static pressure exceeds the BESS Lab test capabilities and were calculated through regression analysis of CFM and CFM/Watt measurements.

Fiberglass Fan Performance Values

					0.0 Static Pressure		.05 Static Pressure		.10 Static Pressure		BESS Lab
Model	**Dia.**	**Drive**	**Cone**	**HP**	**CFM**	**CFM/Watt**	**CFM**	**CFM/Watt**	**CFM**	**CFM/Watt**	**Test #**
APPB-36	36”	Belt	No	0.5	10952	16.1	10152	15.4	9339	14	-
APPB-36C	36”	Belt	Yes	0.5	11232	18.2	10905	17.5	10135	15.8	-
APPB-50	50”	Belt	No	1	21508	17.6	20160	15.7	18707	14.4	-
APPB-50C	50”	Belt	Yes	1	24282	23.4	22760	21	21129	19	01251
CS54C1-P	54”	Belt	Yes	1.75	32125	-	30044	20.2	28157	18.3	-

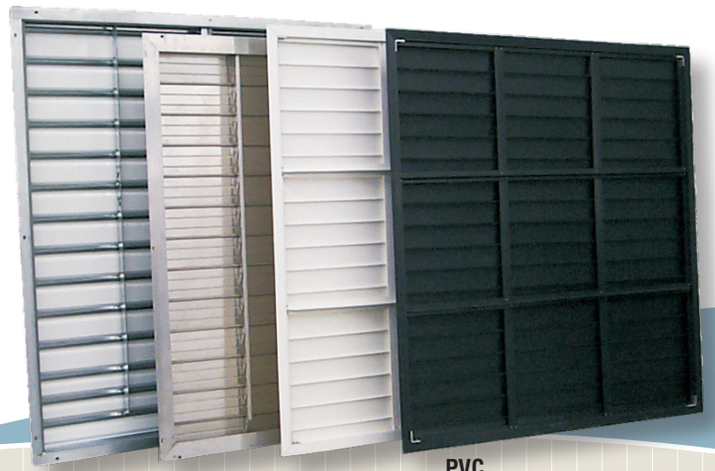
Ultra High Efficient

Fan Shutters

Available in a variety of sizes and materials, we have a shutter to fit your particular requirements be it low light, low maintenance or low cost. The true airfoil design of our shutter blades make them extremely effective allowing for very little performance loss. Simple to install and built to last a lifetime, Cumberland shutters can provide an easy and affordable means of controlling incoming light and building climate.

Cumberland Shutters

Cumberland PVC shutters come in white or black, and are very low maintenance and easy to clean. The black shutters are used in reduced lighting applications. Galvanized shutters have galvanized frames, with epoxy painted blades to reduce rusting, allow easy cleaning and provide additional protection. Aluminum shutters offer great durability in any environment. They have no parts to rust, and are practically maintenance free.



Cooling Systems

Komfort Kooler

Komfort Kooler systems utilize the natural cooling effect of evaporation to combat seasonal dips in production caused by heat stress. Cumberland offers two different styles of Komfort Kooler. The Closed Top System has been an industry favorite for many years. Made of ultraviolet stabilized PVC, this system offers great durability and longevity for the poultry environment. In addition, Cumberland's rapidly growing Open Top System is available. This design offers the grower easy access to manage and maintain their evaporative cooling system and utilizes a combination of PVC and the highest quality of stainless steel for years of dependable operation. Komfort Kooler Systems will adapt to new and existing poultry facilities.

Open Top Design

Made of high quality stainless steel, this system will give years of dependable operation under the harshest conditions. The Open Top design allows you to see the water jets and easily check water pressure. It also offers access to the spray bar for cleaning. Pre-punched and heavy duty stainless steel components help simplify installation.

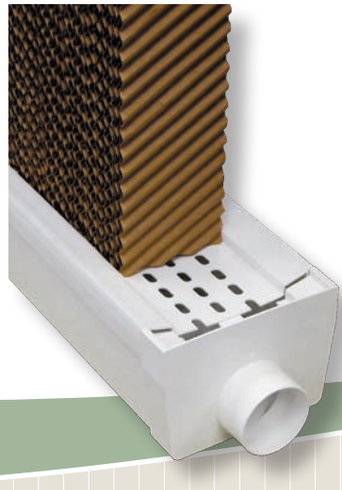
Features

- A roto-molded holding tank offers increased water storage capacity.
- Submersible pump keeps water levels consistent for efficient water delivery.
- Automatic float valve for matching water supply with water demand.
- Easy removal of pads for cleaning.
- Wide selection of cooling pads to choose from.
- Trough support brackets for suspending the system on the sidewall.
- Center Feed Kits for longer cooling systems.

Open Top System

Water Troughs

Cumberland's pre-formed square trough serves as a 3 gallon per lineal foot (44.8 liters per meter) water reservoir. Constructed of corrosion proof, ultra-violet stabilized PVC components, the trough allows unevaporated water to be recirculated back to the holding tank. A perforated tray snaps to the trough to hold pads firmly in place. Injection molded end caps and couplers speed installation.



Closed Top System

Closed Top Design

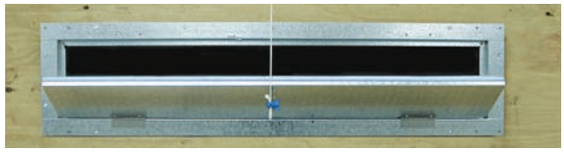
The Closed Top system is extruded from ultraviolet stabilized PVC for durability and ease of installation. The hinge-open cover and thumbscrews allows accessibility to spray bar and holds pads firmly in place. The spray bar bracket and water deflector insure pads are uniformly wet.

Curtain Controller & Auto Curtain

Choose between two different styles of Curtain Machines to maintain precise control of the environment in ventilated poultry houses. The most commonly used machine is the Curtain Controller and is available with pulleys or sprockets. The traditional Auto Curtain Machine comes with a grooved drum for cable operation or a sprocket for chain drive. Both models are available in a variety of curtain speeds and feature heavy-duty construction with galvanized housings.

Vent Doors

Cumberland's vent doors are used in poultry applications where transitional ventilation is required. All galvanized construction and simple to install, these doors are maintenance free and will provide optimum circulation for many years.



Auto Curtain

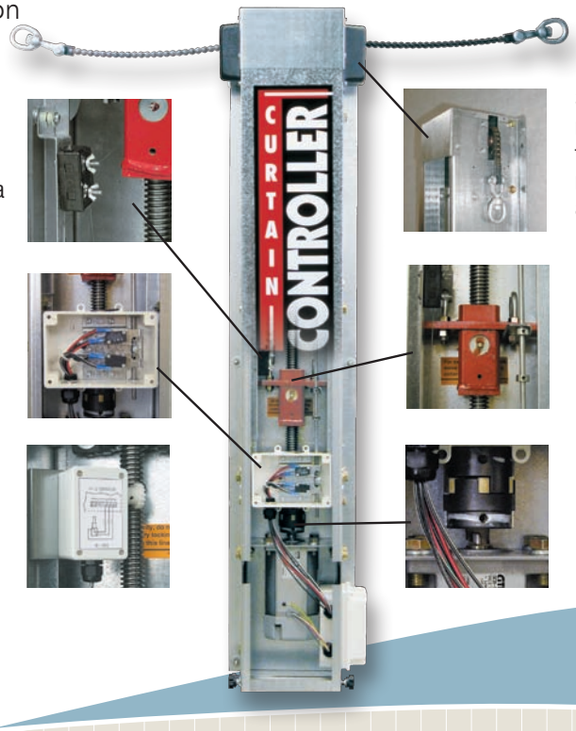
Cumberland's Auto Curtains operate by wenching a cable around a grooved drum controlled by a thermostat and timer. Optional version uses a sprocket and chain drive (instead of drum) turning a pipe that runs the length of the building. This sprocket version operates by pulling the curtain or door drop cords directly around the pipe eliminating the need for cable.

Auto Curtain

Adjustable latch out switches can be installed in multiple locations to energize and de-energize a variety of equipment.

Isolated primary and secondary limit switches allow for back-up protection.

An optional shaft-mounted potentiometer provides an accurate and immediate signal to allow precise control of air inlets or curtains based on temperature, rather than static pressure.



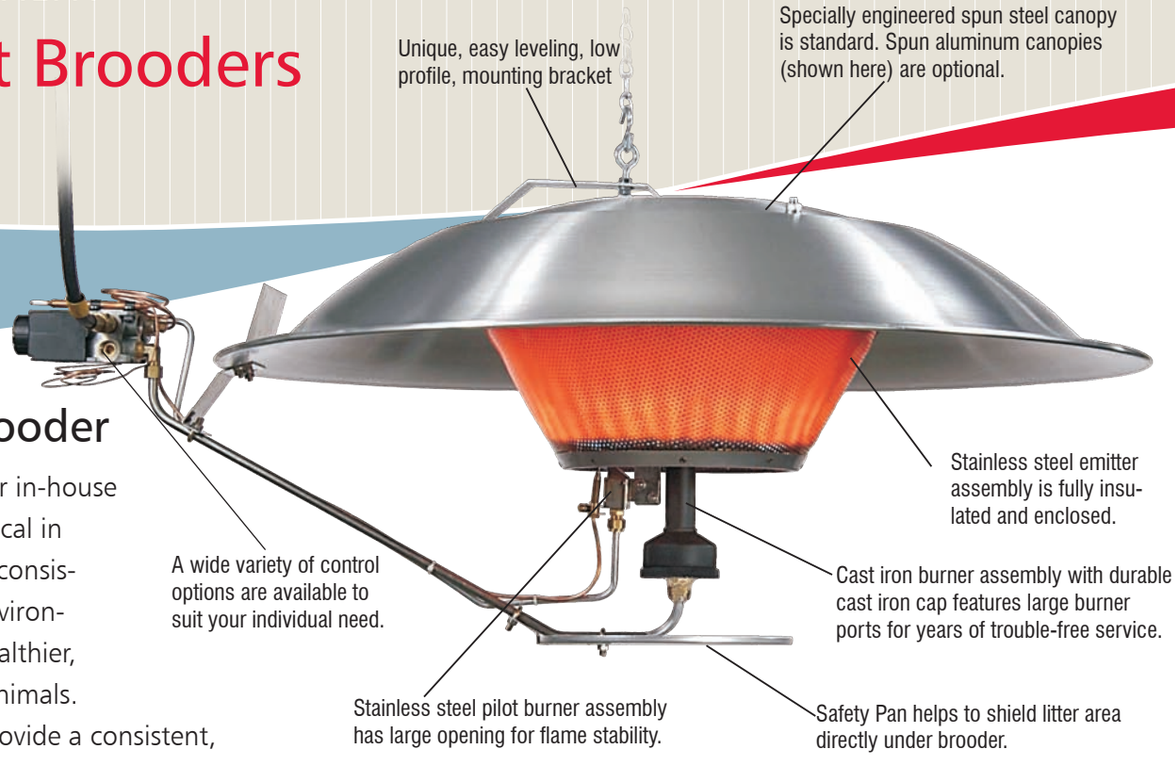
Solid construction and rust resistant materials make the sprocket controller a reliable workhorse year after year.

The drive block assembly features a removable nylon insert that decreases friction for smooth travel on the drive screw.

The Curtain Controller utilizes a threaded block and drive screw directly coupled to a direct drive gear motor.

Curtain Controller

Radiant Brooders


Unique, easy leveling, low profile, mounting bracket
Specially engineered spun steel canopy is standard. Spun aluminum canopies (shown here) are optional.
Stainless steel emitter assembly is fully insulated and enclosed.
A wide variety of control options are available to suit your individual need.
Cast iron burner assembly with durable cast iron cap features large burner ports for years of trouble-free service.
Stainless steel pilot burner assembly has large opening for flame stability.
Safety Pan helps to shield litter area directly under brooder.

Radiant Brooder

Maintaining proper in-house temperature is critical in climate control. A consistent, stress-free environment promotes healthier, more productive animals. PuraFire heaters provide a consistent, clean-burning and fuel-efficient source of warmth for all types of poultry houses. With near 100% efficiency, and liquid propane or natural gas compatibility, the thermostat controlled Radiant Brooder uses less energy to yield greater BTU's for your money. Easy to maintain, corrosion resistant and simple to install, Cumberland brooders are the complete solution to your poultry house heating.

Cumberland Radiant Brooder Specifications

Input Rating (LP or NAT)		40,000 BTU/HR	11.72 kw
Gas Supply Pressure	LP Natural	12-14" w.c. 6-14" w.c.	30-35mbar 15-35 mbar
Mounting Height		60-72"	1520-1830mm
Brooder Spacing		25-40'	7.6-12.2 m
Brooder Size	Canopy Diameter	35"	890 mm
Weight		23 lbs.	10.5 kg
Ventilation Required	Per Brooder	200 CFM	340 m^3/hr
Gas Consumption	LP Natural	.43 GPH .40 THERM	4.63 l/hr 42.2 MJ/hr
Minimum Clearance to Combustibles	Side Top Below	36" 18" 48"	915 mm 460 mm 1220 mm

Control Options

Zone Control Radiant Brooder
For single or multi-zone installations using central or multiple thermostats. This 24 volt AC zone type control can also operate on 12 volt DC as backup. The gas valve includes a built-in regulator. A 24 volt power supply is required. Brooder can be operated by 24 volt thermostat, computer or environmental controller. 100% gas safety shut-off valve.

Modulating Radiant Brooder
A modulating type HI/LO control with integral thermostat. No electrical supply is needed. Upon call for heat, valve will open from pilot to low fire and modulate between low and high fire as necessary to maintain desired temperature setting. When thermostat has been satisfied, valve will modulate down to low fire and then drop to pilot. 100% gas safety shut-off valve.

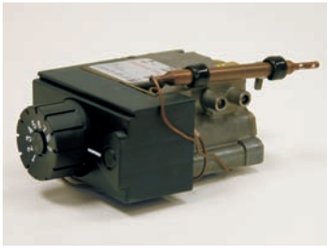
Non-Modulating Radiant Brooder
An individual, non-electric, fully automatic On/Off control with integral thermostat which operates on millivolts generated by the pilot — no electrical supply needed. Integral thermostat features a wide temperature range for easy adjustment. 100% gas safety shut-off valve.

Direct Spark Ignition
A 24 VAC direct spark ignition system. No pilot light saves fuel and maintenance costs.

A consistent, clean burning & fuel efficient source of heat.

Jet Brooder

Cumberland's Jet Brooder combines just the right mixture of gas and air for optimal burn and excellent heat coverage. This system accommodates liquid propane or natural gas for a low cost, and extremely efficient heating alternative. A one-piece burner and removable pilot cover allow easy maintenance for years of reliable operation.



S.I.T. Gas Control Valve

Modulating (21,000 - 35,000 BTU) Non-Modulating (30,000 - 35,000 BTU)

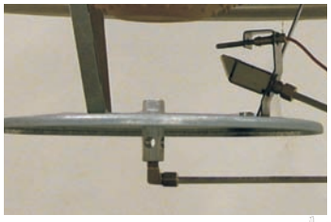
Each PuraFire Brooder with an S.I.T. controller has its own adjustable thermostat (with a range of 70˚-115˚ in 7˚ increments) for optimal control and consistent temperatures. S.I.T. controller conversion between non-modulating and modulating operation is a simple, requiring only the change of a screw. The S.I.T. controller features a safety shut off and accommodates LP or natural gas.

Zone Control Valve

Cumberland's zone control valve (30,000 - 35,000 BTU) allows you to manage your whole system with a single temperature adjustment.

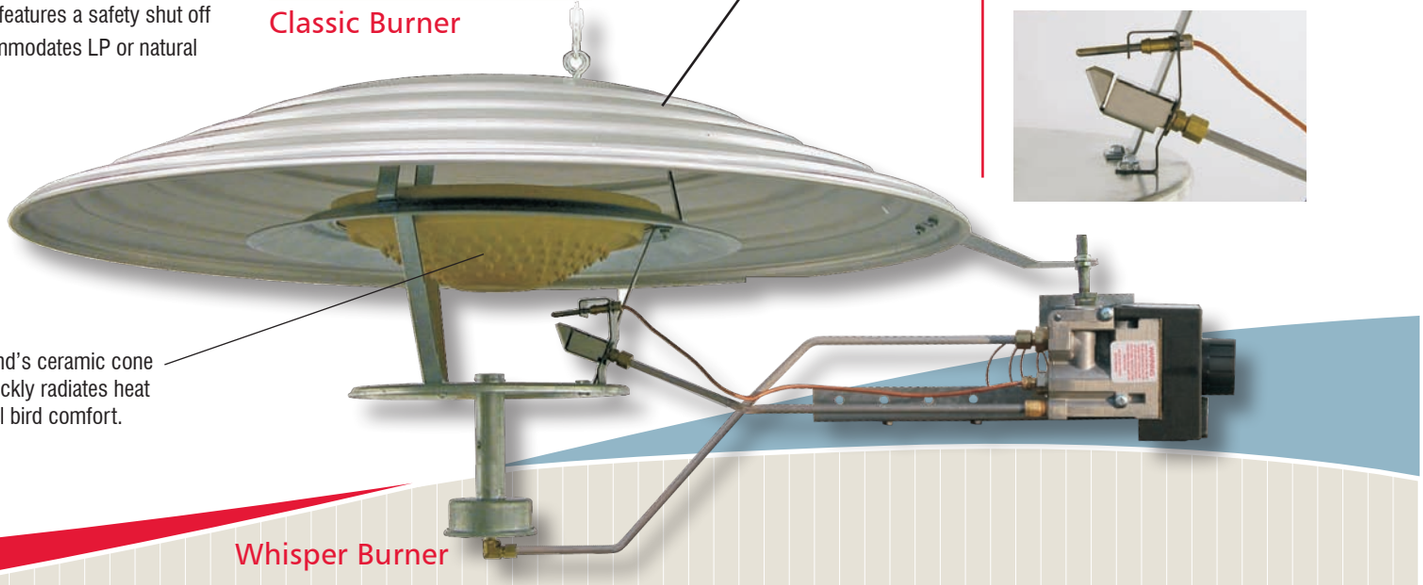
Zone Control Panel

The zone control panel allows you to control up to 30 brooders from one place. It also features a battery backup, four fused zone connections and one thermostat.



Classic Burner

Choose between a lighter, more reflective aluminum canopy or a durable, more economical galvanized steel canopy.



Cumberland's ceramic cone design quickly radiates heat for optimal bird comfort.

Whisper Burner

Thermostat

Cumberland's durable thermostat ensure accurate, automatic operation and are moveable for your convenience.

Lo-Profile Slide Adjust

Quick and easy low-profile slide adjustment hanging system provides easy leveling.

Easy Cleaning Pilot

The stainless steel pilot assembly is equipped with easy to remove pilot cover.

PuraFire Heaters

The Pure Choice for Consistent Heating

PuraFire

With one of the lowest carbon monoxide outputs in the industry (CO emissions of 5 parts per million), Cumberland's PuraFire Heaters are available in three models: the variable output C80 (40,000 to 80,000 BTUH), the C225 (225,000 BTUH), and the variable output C225M (140,000 to 225,000 BTUH). Each heater is LP or natural gas compatible and can be mounted inside or outside any house.

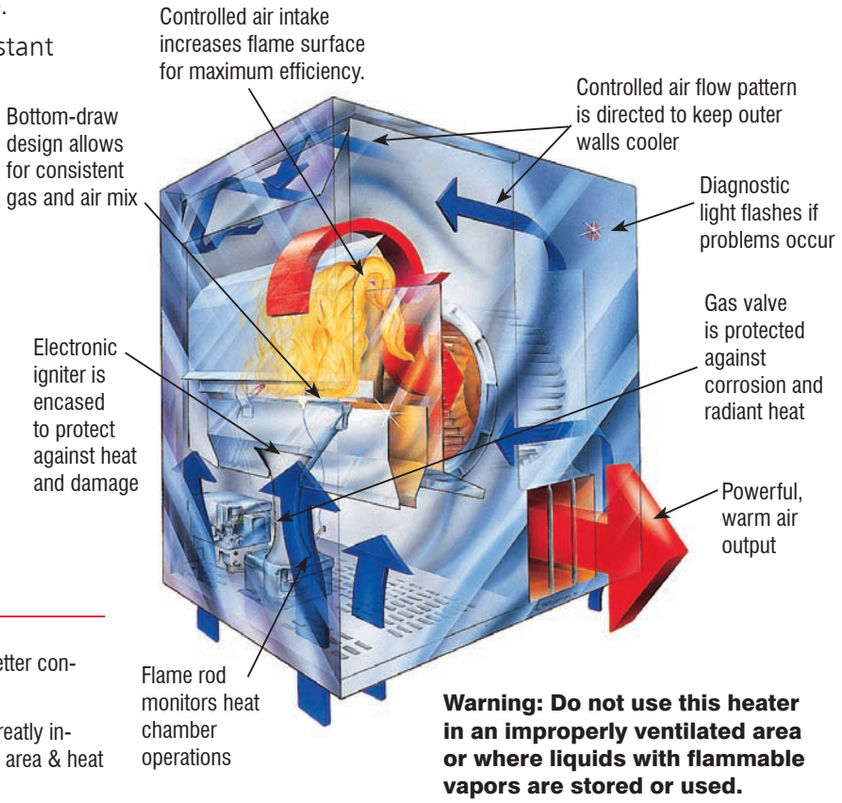
These heaters are constructed of tough, rust-resistant galvanized steel for long life and durability.

The PuraFire and Tube Heaters are CSA Certified.

The "Matchless" Heater

PuraFire's fast-acting 24 volt electronic ignition energizes in just ten seconds. This eliminates unpredictable pilot light flames, as well as the inconvenience of having to clean pilots or restart them with a match. Plus, a stainless steel casing protects the igniter from damage and excessive heat exposure.

PuraFire's bottom-draw intake better controls the air flow into and throughout the entire unit and provides a more efficient mix of air and gas. Cool air, channeled along the inside casing, creates a buffer that keeps the outside cooler (not hot to the touch). This air pattern results in a unique bent flame design, which greatly increases the flame's surface area and heat chamber efficiency.


Controlled air intake increases flame surface for maximum efficiency.
Controlled air flow pattern is directed to keep outer walls cooler
Bottom-draw design allows for consistent gas and air mix
Diagnostic light flashes if problems occur
Gas valve is protected against corrosion and radiant heat
Electronic igniter is encased to protect against heat and damage
Powerful, warm air output
Flame rod monitors heat chamber operations

Warning: Do not use this heater in an improperly ventilated area or where liquids with flammable vapors are stored or used.

The Advantage

- Consistent, clean burning source of warmth with near 100% fuel efficiency
- Thermostat operated
- Intelligent trouble-shooting safety features
- In case of flame failure, an automatic fan shut down stops drafts & gas control lockout prevents gas from escaping
- Bottom-draw intake better controls air flow.
- "Bent flame" design greatly increases flame surface area & heat chamber efficiency
- Outside is not hot to the touch
- Motor assembly, blower, gas valve, control panel & other components are protected from moisture, dirt & dust
- Swinging doors on each side allow access to all working parts

PuraFire igniters are available with stainless steel casings.

Radiant Tube Heaters

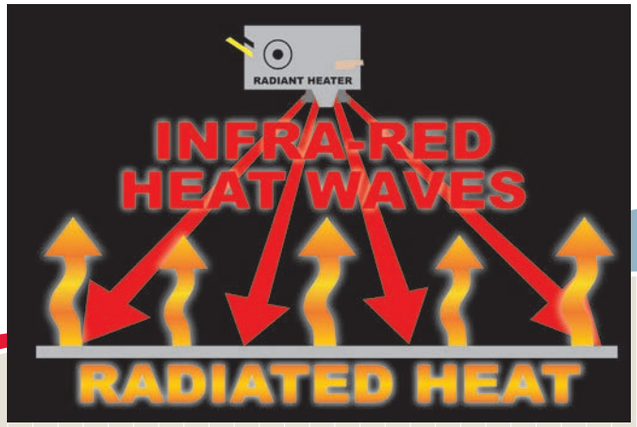
Allowing heat to be directed straight to the birds allows them to find their own comfort zone either closer to or farther away from the heater according to their preference. This obviously reduces stress and allows for better bird performance.

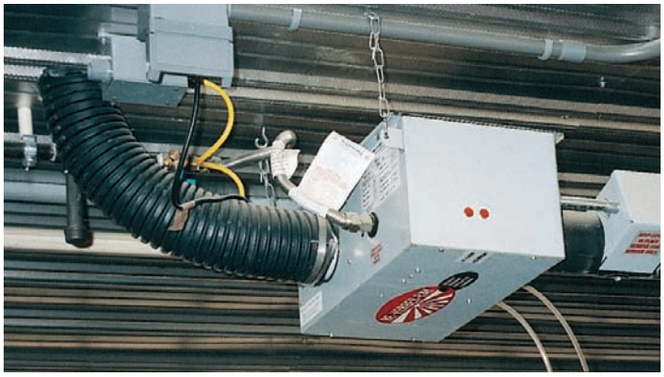
Infra-Red Heat

Getting heat where you want it can be difficult, one way to accomplish this, is to use Cumberland Radiant Tube Heaters. Infra-red heat emulates the true efficiency of the sun. It generates energy that is converted into heat when absorbed by objects like floors and animals. The energy is then re-radiated to warm the surrounding area by convection. This is the most efficient method of heating many poultry facilities.

Patented Two-Stage Burner

- Two-Stage Technology
- Fuel savings
- Faster heat loss recoveries
- Improved comfort levels
- Reduction in equipment cycles
- Design protection benefits.





Heavy Duty control and burner unit, using outside air for combustion

The unique two stage burner adapts to varying conditions providing a more consistent comfort zone with fewer off cycles. Units operate at low fire the majority of the time for improved energy efficiency. High fire mode provides reserve heating capability when conditions require.

Cumberland's AG-1 or AG-2 Heater Features

- 16ga. aluminized combustion chamber - (1st 10')
- Turbulator baffle for maximum efficiency
- 4" overlapping slip-fit tube connections
- High efficiency polished aluminum reflectors
- Solid state silicon carbide ignition system
- Unique anti-rattle reflector springs
- 24" PVC coated stainless steel flex connector
- Ignitor changeable without tools
- Bolted tube clamps
- 2 x 4 electrical junction box
- Air inlet collar standard
- 100% enclosed components
- 1/2" gas cock provided
- Reflector end caps

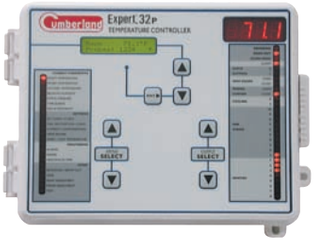
Integrated Management Systems

INTEGRA Controls

Precise control of the temperature, airflow, bird weight, water consumption, feed inventory and lighting is a must for achieving top profits for growers. Cumberland's Integra line of equipment combines all of these elements together into one cost effective, easy to operate management system. This fully integrated management system allows access of real-time data to ventilation, bird weight, water consumption, feed inventory and lighting for the entire site from a single location. Data can be accessed from an on-site PC or remotely via modem.

Expert 32 Controller

- Up to two (2) time clock outputs
- Capable of operating vent doors and tunnel curtains
- Up to two (2) cooling outputs
- Up to ten (10) fan outputs
- 8 independent heating outputs
- Indicator lights show status of components
- Handles up to 6 selectable temperature probe(s) for each heating zone
- Configure a brooding and a growout setup according to "YOUR" specific needs. Select the clean mode program when the house is empty
- Adjustable empty zone set point that is independent from the main set point
- Integrated static pressure sensor for vent doors
- Summer/winter settings based on outside temperatures
- Capability of entering daily mortality into the controller
- Full mortality history of the current flock available
- Collects water consumption data per day and flock
- Fully integrated system, no fighting between components
- Adjustable fan startup delay to allow vent door pre-opening
- Day and night settings for minimum ventilation and set point
- Alarm settings for temperature, static pressure, probes, watering, and more



Expert 64+ Controller

- 8 Hi-Lo Heat Zones
- 16 Tunnel Fan Groups
- 5 Minimum Fan Groups
- 2 Cooling Stages with Ramping
- Tunnel Curtain Capability
- Vent Door Capability
- Change ventilation with 5 different programs
- Up to 64 relay outputs with a second relay panel
- Up to 24 different times on the time clock where you can assign different relays to each clock
- Upload/Download: Program one control on a chip and easily upload all other controls on the site
- Mist ramping feature: As heat increases in the building so will your on time
- Light program: Ramping light program with variable module option (LD-7000)
- Day and night settings for minimum ventilation: Capability of having a different minimum ventilation timer for day and night
- Mortality: Capability of entering daily mortality into the controller. Full mortality history of the current flock available.

Relay Panel

- 32 Output Relay Panel
- On/Off/Auto Relay Switches
- Open/Off/Close Switches for Curtain Relays
- Clear Protective Door
- LED on lights
- Only 5 wires between the Controller and the Relay Panel

Controller Accessories

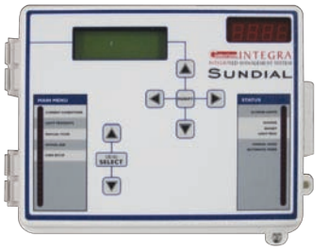
Expert-SB
Back-up Safety Relay Box - up to eight (8) stages. Back-up Safety Relay Box does not include thermostats.

WMC-Meter
Water Meter F/Water Monitoring Controls

Probe-Hum
Humidity Sensor Probe

Environment • Water • Feed Systems • Video Surveillance • Feed Inventory & Consumption • Bird Weight
I-BOX 360
INFORMATION IS POWER
For more details refer
to I-Box Literature

Sundial Light Dimmers



Programmable Light Control

- LCD Display
- 10 Light Programs
- 6 Sunrise/ Sunset Cycles
- Light Peaks
- Automatic/Manual Mode
- Computer Control
- Backup Battery
- Password Protection

Static Pressure Transmitter
Static Pressure Transmitter

SP-Module
Static Pressure Module

Power Module

- Light intensity can be different in zone 1 & 2 or identical.
- Two resistive loads of 3500W each.
- Manual Mode: Can be used as a stand alone unit.
- Auto Mode: Light intensity in the selected zone(s) is automatically adjusted by the master controller. Communication between both controls is established by using a 0-10V signal.
- Pre-programmed curve for incandescent lights.
- Compatible with Expert32ES & Expert64+

Alarm Systems

AA-800
Agri Alert 800 Alarm System -
- Alarm for 8 Zones
- 8 programmable Numbers
- Maximum Surge Protection

AA-2400
- Agri Alert 2400 Alarm System -
- Expandable 8 to 24 Zones
- Alarm History
- Outdoor Temp. Compensation
- Dial-Out & Monitoring System

AA-9600
- Agri Alert 9600 Alarm System -
- Expandable 8 to 24 Zones
- 8-Zone Extension Box (up to 6)
- Agnet Windows Software
- Sophisticated Lightning Protection

Alarm Accessories

AA-24Ext
Agri Alert 2400 Extension Card
- 8 Zone (Up to 2 per AA-2400)

AA-96Ext
Agri Alert 9600 Extension Card
- 8 Zone (Up to 2 per AA-9600)

AA-Battery
Agri Alert Rechargeable Battery
- 7A/H (AA-9600 and AA-2400)

AA-24Power
- Agri Alert 800/2400, Power Pack

AA-96Power
- Agri Alert 9600, Power Pack

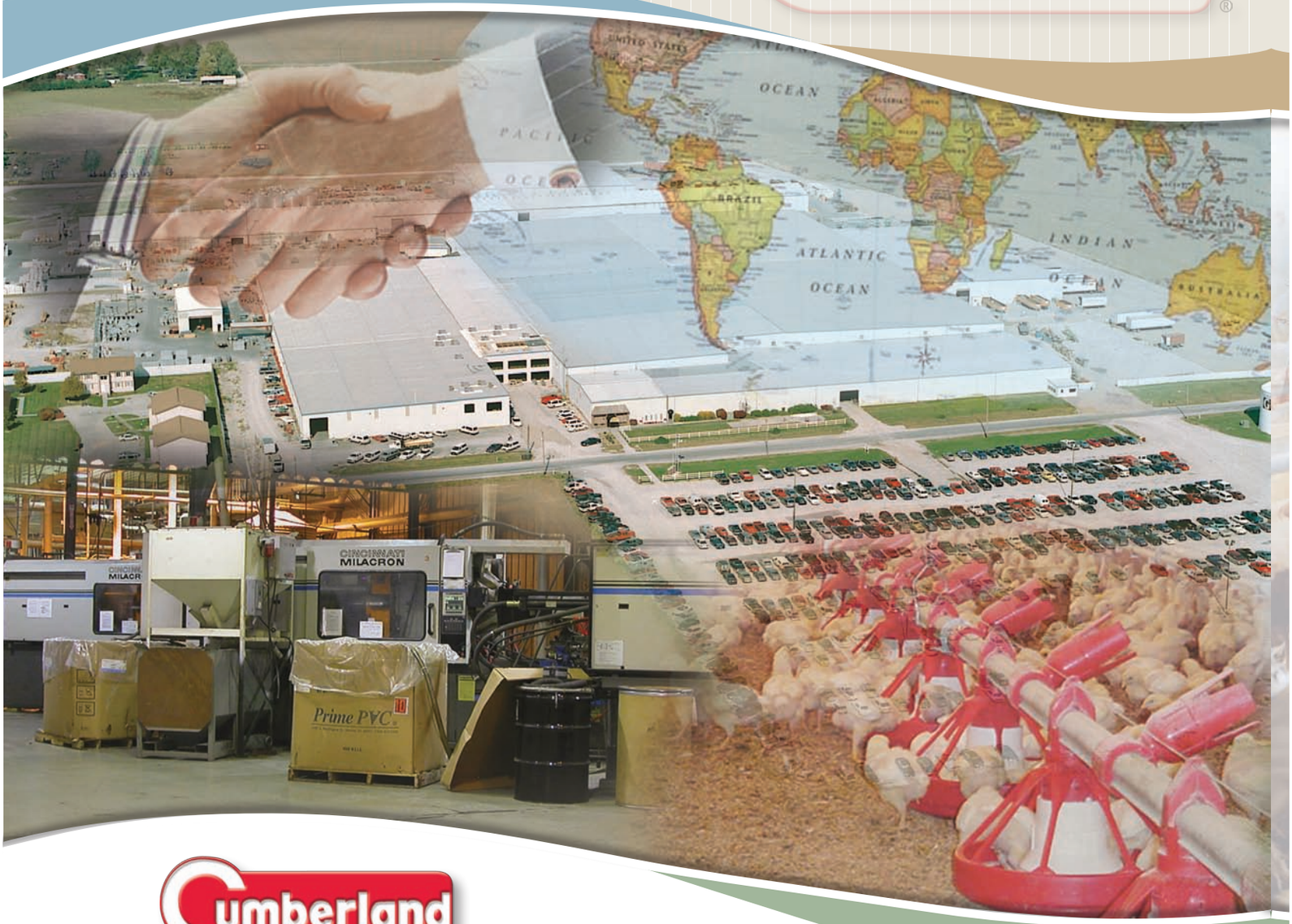
Feather Weight Bird Scale

- Weigh your birds 24 hours/day
- Give you accurate data
- Help you reduce mortality
- Help you reach your desired TARGET weight

- Featherweight can have up to 4 platforms - 2 in each house. Each platform has an independent reading. Any platform can be assigned to house 1 or house 2.
- Load cells are not on the floor, giving you a precise reading every time.
- Easy to use
- Push-button access to information.
- Gives important daily information:
  - Average weight
  - Number of weight
  - Standard deviation
  - Uniformity and daily gain
- PC Compatible

Why Choose Cumberland for your Poultry Needs?

Cumberland is a Division of The GSI Group and has been in the poultry business for over twenty years. Our corporate facility located in Assumption, IL houses over 1000 employees and has over one million square feet under roof. Also, located within a seventy-five mile radius of our corporate office is another five satellite manufacturing facilities. To support our international sales and needs, we have two manufacturing facilities located in Malaysia and Brazil, with respective offices and warehouses located around the world. You can be sure Cumberland will be here to service your poultry needs today and tomorrow. Cumberland's complete line of cutting edge products, great customer service, and commitment to excellence, the choice is simple...*choose Cumberland*.



Cumberland®

Your Source for Innovative Solutions

GSI GROUP

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